

Scale: 1 inch= 30 Ft.

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Prepared For: Holbrook Associated P.O. Box 401 Rockland, MA 02370

Job Name: **Hungerford Terrace Lighting Layout** Version B

PROJECT #: 152640 Scale: as noted Date:7/23/2020 CASE #:00465632

Drawn By: S Elliott

The Lighting Analysis, ezLayout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by the RAB Lighting Inc. ("RAB") represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by RAB and therefore actual measured r esults may vary from the actual field conditions. RAB recommends that design parameters and other information be field verified to reduce variation.

Filename: Hungerford Terrace Lighting Layout 00465632B.AGI RAB neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent as compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by RAB. The Lighting design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package

Filename: Z:\Job Files\Holbrook Associated\NE North East\Williston 108345\Hungerford Terrace\Working Files\AGI\Hungerford Terrace Lighting Layout 00465632B.AGI



2.4 1.3 0.53 0.16 0.02 L_Diffuse (Cd/Sq.m)

Iso View

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Plan View

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Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
CalcPts Ground	Illuminance	Fc	1.21	9.6	0.0	N.A.	N.A.	Readings Taken at 0'-0"AFG	10	10	Horizontal
CalcPts Perimeter	Illuminance	Fc	0.14	1.0	0.0	N.A.	N.A.	Readings Taken at 0'-0"AFG	10	N.A.	Horizontal
CalcPts Perimeter	Illuminance	Fc	0.01	0.1	0.0	N.A.	N.A.	Readings Taken at 0'-0"AFG	10	N.A.	Horizontal
StatArea Parking L	Illuminance	Fc	1.91	4.2	0.3	6.37	14.00	Readings Taken at 0'-0"AFG			

Luminaire Schedule			All quotes/orders generated from this layout must be forwarded to the Local Rep Agency					
Symbol	Qty	Tag	Label	Arrangement	LLF	Description	BUG Rating	
	7	E	WPLED5Y	SINGLE	1.000	Wall Mount	B0-U1-G0	
	3	F	WPLED10Y	SINGLE	1.000	Wall Mount	B1-U0-G0	
+	2	G	VANLED10YF	SINGLE	1.000	Ceiling	B1-U0-G1	
	4	Н	WPLED26Y	SINGLE	1.000	Wall Mount	B1-U0-G0	

Luminaire Tag Summary			
Tag Qty			
E	7		
F	3		
G	2		
Н	4		

Expande	Expanded Luminaire Location Summary						
LumNo	Tag	Х	Υ	MTG HT	Orient	Tilt	
1	Н	78.351	61.739	20	270	0	
2	Н	134.262	77.952	20	270	0	
3	G	55.238	67.066	15	0	0	
4	Н	116.279	121.325	10	0	0	
5	E	151.422	79.735	10	0	0	
6	E	151.411	106.174	10	0	0	
7	E	155.758	129.434	10	0	0	
8	E	155.758	155.228	10	0	0	
9	F	145.298	33.962	10	180	0	
10	G	55.238	88.676	15	0	0	
11	E	116.165	152.346	10	0	0	
12	F	103.94	156.635	10	90	0	
13	F	141.5	156.167	10	90	0	
14	Н	115.351	61.739	20	270	0	
15	E	155.758	141.434	10	0	0	
16	E	151.411	92.174	10	0	0	
Total Qua	Total Quantity: 16						

- * The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.
- * Illumination values shown (in footcandles) are the predicted results for planes of calculation $either \ horizontal, vertical \ or \ inclined \ as \ designated \ in \ the \ calculation \ summary. \ Meter \ orientation$ is normal to the plane of calculation.
- * The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.
- * Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.
- * It is the Owner's responsibility to confirm the suitability of the existing or proposed poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.
- * The landscape material shown hereon is conceptual, and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.
- ${}^*\,Photometric\,model\,elements\,such\,as\,buildings, rooms, plants, furnishings\,or\,any\,architectural$ details which impact the dispersion of light must be detailed by the customer documents for inclusion in the RAB lighting design model. RAB is not responsible for any inaccuracies caused by incomplete information on the part of the customer, and reserves the right to use best judgement when translating customer requests into photometric studies.
- * RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.



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that design parameters and other information be field verified to reduce variation.

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Filename: Z:\Job Files\Holbrook Associated\NE North East\Williston 108345\Hungerford Terrace\Working Files\AGI\Hungerford Terrace Lighting Layout 00465632B.AGI





LED 5W Wall packs. patent-pending thermal management system. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.

Color: Bronze Weight: 2.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Inf	·o	LED Info		
Туре	Constant Current	Watts	5W	
120V	0.18A	Color Temp	3000K (Warm)	
208V	0.18A	Color Accuracy	88 CRI	
240V	0.18A	L70 Lifespan	100,000	
277V	N/A	Lumens	128	
Input Watts	5.30W	Efficacy	24.2 lm/W	

Technical Specifications

Listings

UL Listed:

Suitable for wet locations in downlight position only. Suitable for mounting within 1.2m (4ft) of the ground.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

5W, high-output, long-life LED

Color Temperature:

3000K

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Ambient Temperature:

Suitable For use in 40°C (104°F)

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Precision die-cast aluminum housing and mounting plate. 1 1/2" backbox with three 1/2" conduit entry points.

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color



Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Patents:

The WPLED design is protected by patents pending in the U.S., Canada, China, Taiwan and Mexico.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Equivalency:

Equivalent to 13W CFL or 60W Incandescent

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Electrical

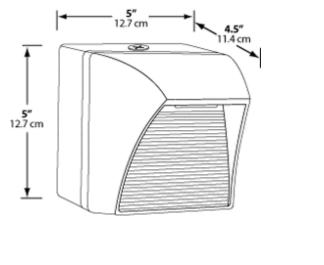
Drivers:

Constant current, Class 2, 100 - 240VAC, 50 - 60 Hz, 0.18 Amps.

Surge Protection:

1 KV

Dimensions



Features

High performance LED light engine

Maintains 70% of initial lumens at 100,000-hours

Weatherproof high temperature silicone gaskets

Superior heat sinking with die cast aluminum housing and external fins

Replaces 13W CFL or 60W Incandescent

100 up to 240 Volts

5-Year, No-Compromise Warranty





LED 10W & 13 Wall packs. patent-pending thermal management system. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.

Color: Bronze Weight: 3.3 lbs

Project:	Туре:
Prepared By:	Date:

Driver Inf	o	LED Info		
Туре	Constant Current	Watts	10W	
120V	0.1A	Color Temp	3000K (Warm)	
208V	0.07A	Color Accuracy	74 CRI	
240V	0.06A	L70 Lifespan	100,000	
277V	0.05A	Lumens	1,198	
Input Watts	12.40W	Efficacy	96.6 lm/W	

Technical Specifications

Listings

UL Listed:

Suitable for Wet Locations as a Downlight. Suitable for Damp Locations as an Uplight. Wall Mount only. Suitable for Mounting within 4ft. of ground.

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. DLC Product Code: P5NSZ02C

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Lumen Maintenance:

The LED will deliver 70% of its initial lumens at 100,000 hours of operation

Construction

Finish:

Formulated for high durability and long-lasting color

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F)

Housing:

Precision die-cast aluminum housing, lens frame

Mounting:

Surface plate and Junction box

Green Technology:

Mercury and UV free. RoHS-compliant components.



Technical Specifications (continued)

Construction

Gaskets:

High-temperature Silicone

Electrical

Driver:

Multi-chip 10W high output long life LED Driver Constant Current, Class II, 120V-240V, 50/60/ Hz, 350mA

THD:

10.8% at 120V. 13.8% at 277V

Power Factor:

98.5% at 120V, 92.1% at 277V

Other

Patents:

The design of the LPACK is protected by U.S. Pat. D604,004 and patents pending in Canada, China and Taiwan.

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Equivalency:

Equivalent to 70W Metal Halide

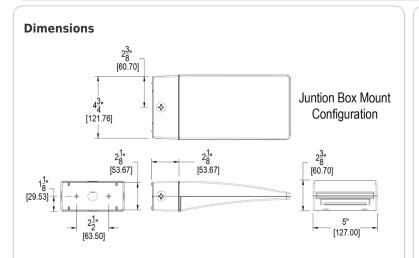
Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:

B1 U0 G0



Features

High performance LED light engine

Maintains 70% of initial lumens at 100,000-hours

Weatherproof high temperature silicone gaskets

Superior heat sinking with die cast aluminum housing and external fins

5-Year, No-Compromise Warranty





Low-profile vandal-resistant fixture covers the footprint of most traditional canopy lights. Available in flat or drop lens with frosted and unfrosted options.

Color: Bronze Weight: 10.0 lbs

Project:	Туре:
Prepared By:	Date:

Driver In	fo	LED Info		
Туре	Constant Current	Watts	10W	
120V	0.11A	Color Temp	3000K (Warm)	
208V	0.07A	Color Accuracy	84 CRI	
240V	0.06A	L70 Lifespan	100,000	
277V	0.05A	Lumens	1,921	
Input Watts	13.4W	Efficacy	143.4 lm/W	

Technical Specifications

Listings

UL Listed:

Suitable for Wet Locations. Covered Ceiling Mount Only.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. DLC Product Code: PGTX21QW

LED Characteristics

LEDs:

Long-life, high-efficacy, surface-mount LEDs

Color Stability:

RAB LEDs exceed industry standards for chromatic stability

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F)

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Lens:

Vandal-resistant polycarbonate textured opaque for low glare flat lens

Housing:

Die-cast aluminum housing and lens frame with (4) 1/2" NPS side conduit entries and weatherproof rear wire plug and access plate

Mounting:

Ceiling mount to recessed junction with knockout template or directy to ceiling surface, utilizing side conduit entry points

IP Rating:

Ingress Protection rating of IP66 for dust and water

Air Tight:

Housing certified Air Tight as per ASTM E283

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color



Technical Specifications (continued)

Other

Equivalency:

Equivalent to 70W Metal Halide

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Electrical

Driver:

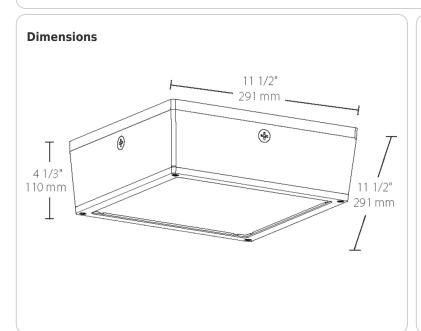
Class 2, Constant Current, 120-277V, 50-60Hz, 120V: 0.11A, 208V: 0.07A, 240V: 0.06A, 277V: 0.05A

THD:

9.61% at 120V, 16.5% at 277V

Power Factor:

98.2% at 120V, 89.3% at 277V



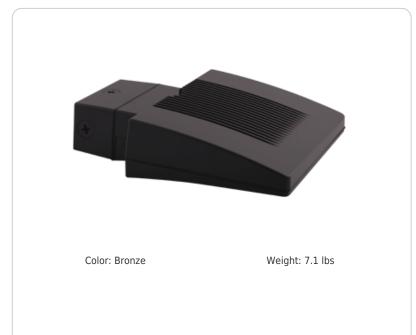
Features

Fits the footprint of older canopy lights
Vandal resistant and UV resistant lens
Ultra-high efficiency
Clean, contemporary, low-profile design
Available with drop lens or flat lens
IP66 rated, keeps dust, bugs and water out
Photo and motion sensor options available



Ordering Matrix									
Family	Wattage	Color Temp	Lens-Optics	Finish	Voltage	Options	Suffix		
VANLED	10	Υ	F						
	10 = 10W 20 = 20W 28 = 28W 40 = 40W 52 = 52W 65 = 65W 75 = 75W	Blank = 5000K (Cool) N = 4000K (Neutral) Y = 3000K (Warm)	Blank = Drop lens F = Flat lens ¹ FR = Frosted Drop Lens FFR = Frosted Flat Lens ¹	Blank = Bronze W = White	Blank = 120-277V, 0-10V Dim Standard /480 = 480V, 0-10V Dim Standard	Blank = No Options /MVS = Microwave Sensor 1 /WS = Wattstopper, 8ft /WS2 = Wattstopper, 20ft /PCS = 120V Swivel Photocell /PCS2 = 277V Swivel Photocell /PCS4 = 480V Swivel Photocell /LC = Lightcloud® Control factory Installed /E2 = Battery, 120-277V only	Blank = Standard USA = Complies with the BAA		
¹ /MVS option not available with F and FFR lens									





Project:	Туре:
Prepared By:	Date:

Driver Inf	·o	LED Info		
Туре	Constant Current	Watts	26W	
120V	0.26A	Color Temp	3000K (Warm)	
208V	0.16A	Color Accuracy	70 CRI	
240V	0.14A	L70 Lifespan	100,000	
277V	0.12A	Lumens	3,267	
Input Watts	29.5W	Efficacy	110.7 lm/W	

Technical Specifications

Listings

UL Listed:

Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. DLC Product Code: P00001750

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Finish:

Formulated for high durability and long-lasting color

Ambient Temperature:

Suitable For use in 40°C (104°F)

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Patents:

The WPLED design is protected by U.S. Pat. D634878, Canada Pat 134878, China Pat. CN301649064S.

Equivalency:

Equivalent to 150W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

WPLED26Y



Technical Specifications (continued)

Optical

BUG Rating:

B1 U0 G0

Electrical

Driver:

THD:

9.16% at 120V, 10.34% at 277V

Multi-chip 26W high output long life LED Driver Constant Current, 720mA, Class 2, 6kV Surge Protection, 100V-277V, 50-60 Hz, 100-240V.4

Features

Maintains 70% of initial lumens at 100,000-hours

Weatherproof high temperature silicone gaskets

Superior heat sinking with die cast aluminum housing and external fins

100 up to 277 Volts

5-Year, No-Compromise Warranty